

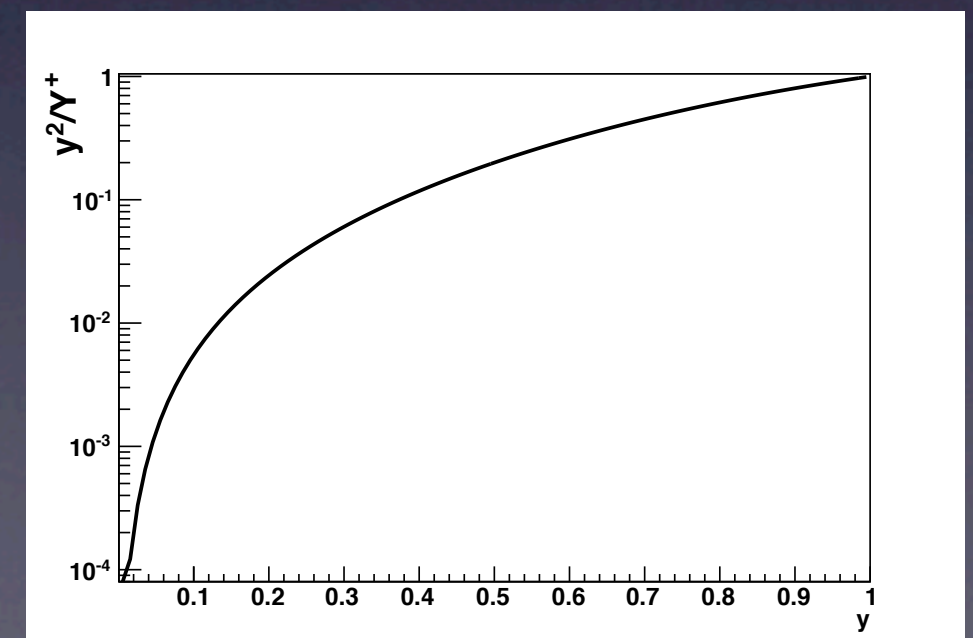
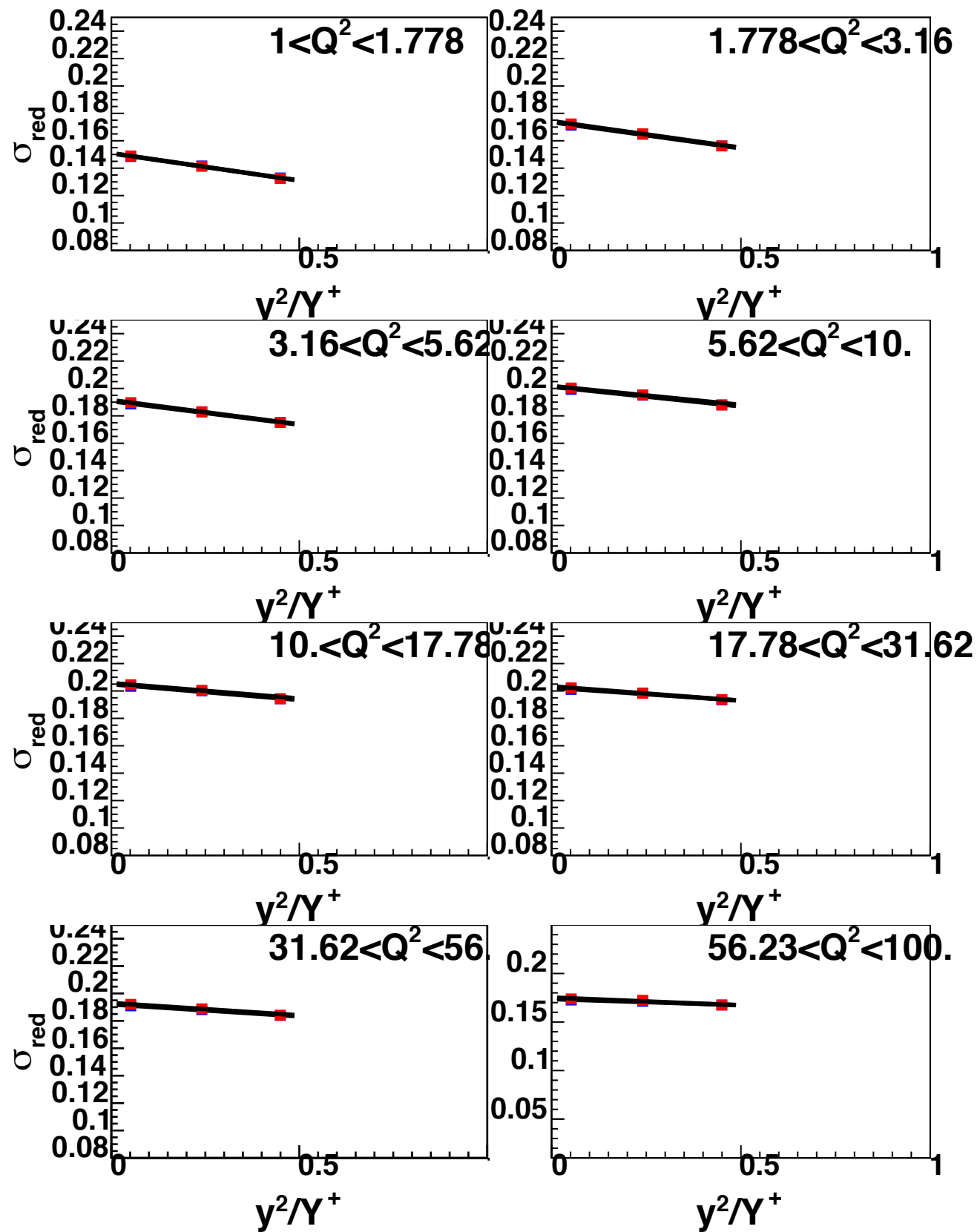
# $F_L$ from data binned in $y$ and $Q^2$

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From recent lessons learned, I modified my FI extraction macros to do:

- Extract the information from data binned in  $Q^2$  and  $y$
- $y$  bins defined at lowest hadron energy
- $y$  bin size set by old  $x$  binning (5 bins per decade) can change.
- Select hadron energies to have three  $\sim$ equidistant in  $y^2/Y^+$

In all cases the highest value of ordinate corresponds to 100 GeV





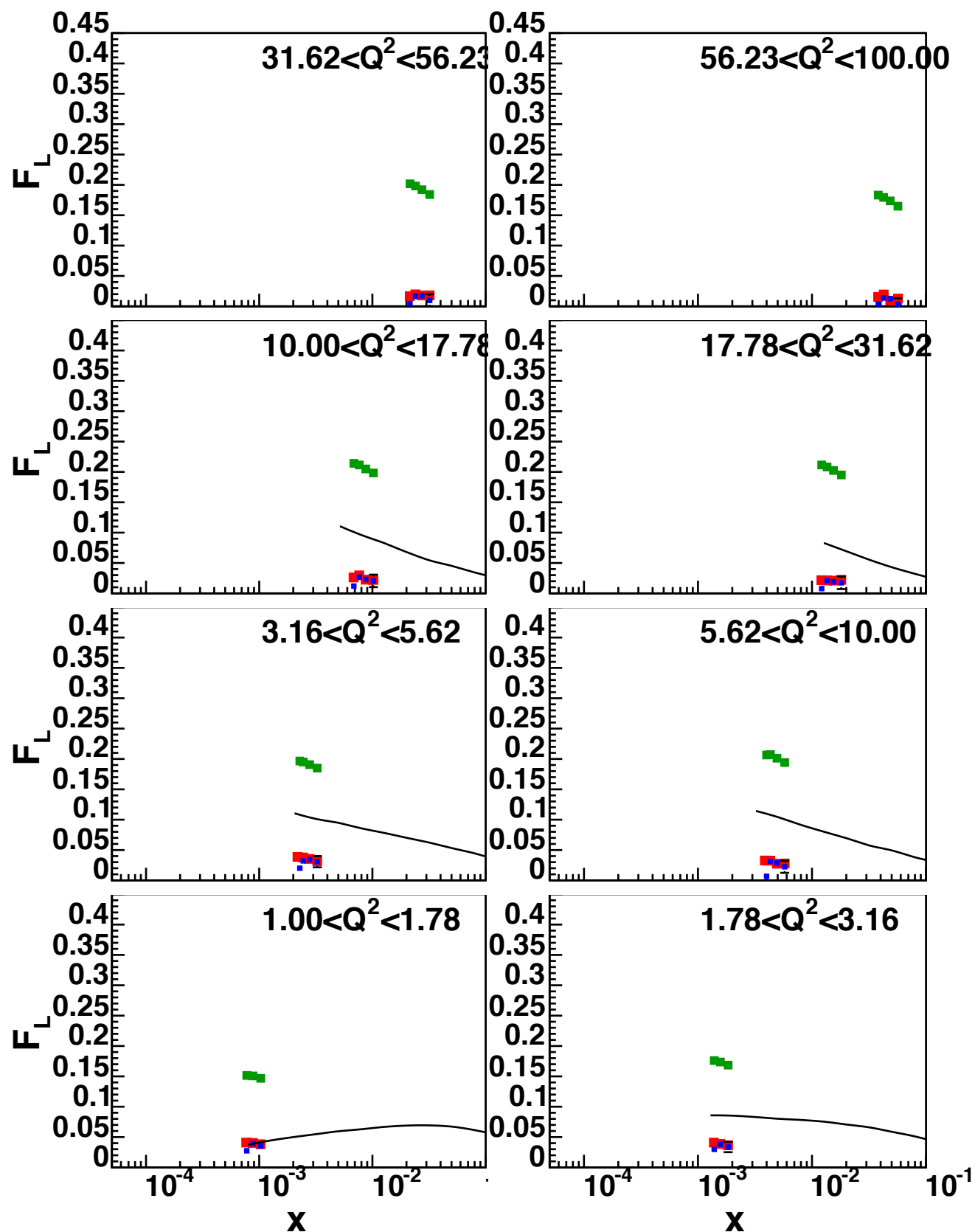
e: 5 GeV p: 100, 130, 250 GeV/c

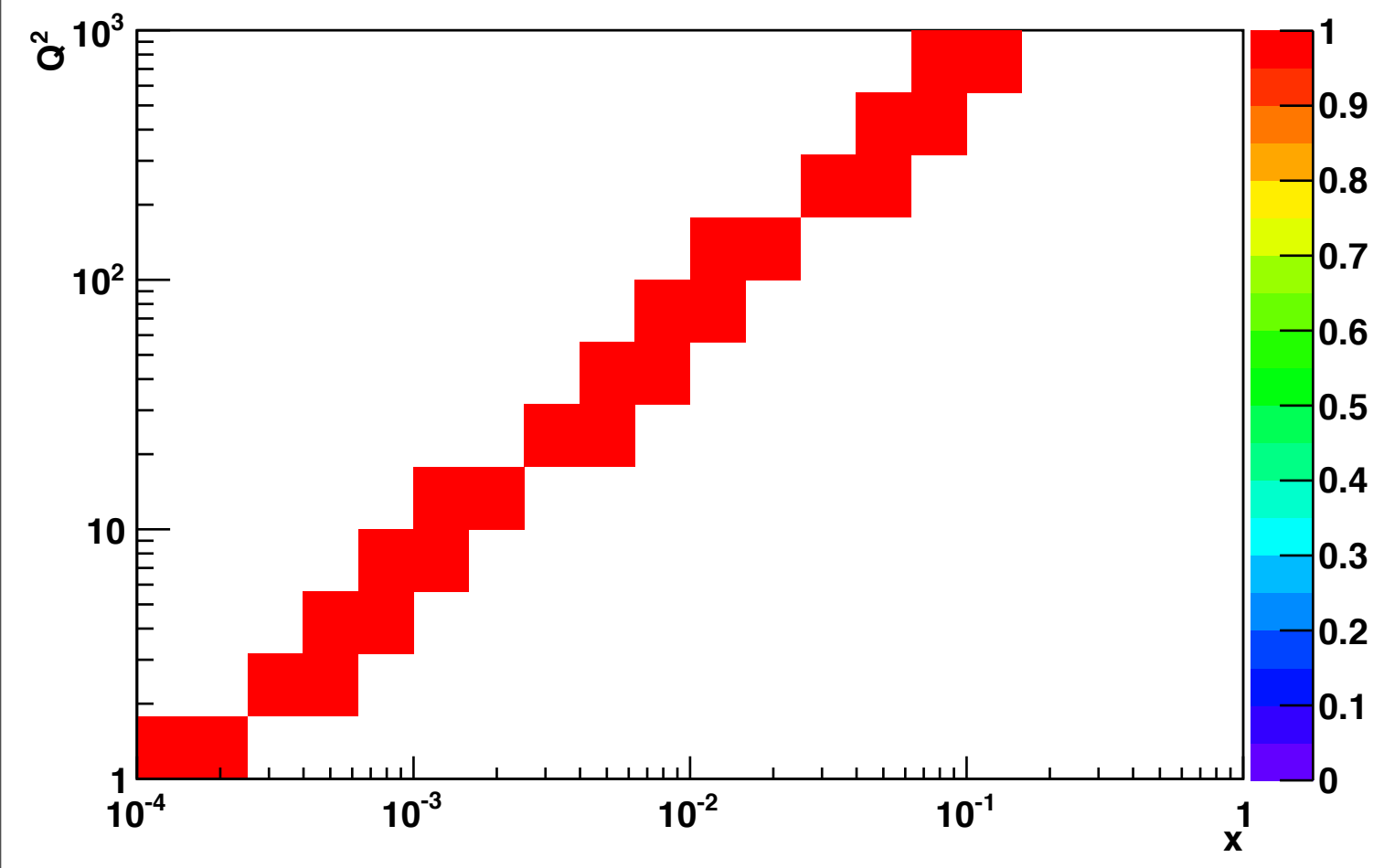
red markers  $F_L$   
perfect detector.  
Blue:  $F_L$  detector  
with finite  
resolution and 1%  
sys.  
Green:  $F_2$  detector  
with finite  
resolution and 1%  
sys.

curve MRST2000

Lowest value of x and  $Q^2$  :

y	$y^2/Y^+$	proton p
0.7	0.44	100
0.54	0.24	130
0.28	0.28	250





By running higher electron beam energies  
we can reach a  $x$  coverage of almost a full  
decade.

Near future:  
Switch to Django + detector effects + radiative  
corrections